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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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23117	7590	12/04/2006	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			COLAN, GIOVANNA B	
			ART UNIT	PAPER NUMBER
			2162	

DATE MAILED: 12/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,794

Applicant(s)

KROHN ET AL.

Examiner

Giovanna Colan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is issued in response to the Amendment filed on 09/11/2006.
2. Claims 5, 7, and 13 were amended. No claims were canceled. No claims were added.
3. This action is made Final.
4. Claims 1 – 16 are pending in this application.
5. Applicant's arguments filed on 09/11/2006 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liddy et al., "Liddy" (U.S. Patent No. 5,963,940), and in view of Bowman et al., "Bowman" (WO Patent No. 99/45487).

Regarding Claim 7, Liddy discloses a method ...comprising:

(i) detecting submission by a user of a query term to an information retrieval tool, and a corresponding response from the retrieval tool (Abstract, "The user enters a query and the system processes the query to generate an alternative representation..."; "After processing the query, the system displays query information to the user, indicating the system's interpretation and representation of the content of the query. The user is then given an opportunity to provide input, in response to which the system modifies the alternative representation of the query. Once the user has provided desired input, the possibly modified representation of the query is matched to the relevant document database, and measures of relevance generated for the documents. A set of documents is presented to the user..."; col. 32, lines 46-48, "Matcher 55 takes the QP-based query representation, either unmodified or modified by the user as described above, and finds suitably similar documents in a range of databases."; Liddy);

(ii) detecting an indication by the user as to the relevance of a set of information identified in the response from the retrieval tool (Abstract, "A set of documents is presented to the user, who is given an opportunity to select some or all of the documents, typically on the basis of such documents being of particular relevance"; Liddy);

(iii) storing in a data store a reference to the set of information indicated as being relevant at (ii) (Col. 27, line 67 – col. 28, line 6, "...a number occur after the documents are retrieved (including retrieval and display criteria selection, the display of relevant documents in various formats, the marking of relevant documents, the construction of new, informed queries based on the contents of documents deemed

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highly relevant, and printing or storing marked documents..."; Liddy), and a record of the query term submitted by the user at (i) (Col. 32, lines 43-45, 'The user can also click the "Return to Request" button 370i and modify the query' wherein it is inherent that the query is stored in the system for the user to be able to go back to modify the query, wherein 'query' is analogous to 'search criterion'; Liddy);

However, Liddy does not expressly disclose selecting and calculating, for every selected set of information, a weighting associated with every query term, said weighting indicative of the proportion of users who identified the selected set of information and indicated that it was relevant; identifying ... a weighting in excess of a predetermined threshold; providing ... output ... by use of said identified query term.

On the other hand, Bowman discloses the steps of:

(iv) selecting one or more: sets of information referenced in the data store; (v) calculating, calculating, for every selected set of information, a weighting associated with every query term, said weighting indicative of the proportion of users who, on submitting the query term to the information retrieval tool, identified the selected set of information and indicated that it was relevant (Figures 3, 4, and 8, steps 803, and 804, Page 3, lines 6-9, "The scores in the rating table preferably reflect, for a particular item and term, how often users have selected the item when the item has been identified in query results produced for queries containing particular term"; wherein the step including scores in a rating tables corresponds to the step of weighting as claimed; Bowman);

(vi) identifying weighted query terms from those calculated in that exceed a predetermined threshold (Figure 6, Page 3, lines 18-21, "On the other hand, in embodiments in which the goal is to select a few items in the query result having the **largest ranking values**, the facility preferably loops through the terms in the query, and, **for each item, identifies the top few rating scores for that term and any item**"; page 14, line 17 – page 15, line 3, "In step 806, the facility combines the scores for the current item to generate a ranking value for the item. As an example, with reference to Figure 6, in processing datum having item identifier "1883823064", the facility combines the score "116" extracted from entry 602 for this item and the term "dynamics", and the score "211" extracted from entry 605 for this item and the term "human". Step 806 preferably involves summing these scores. These scores may be combined in other ways, however. In particular, scores may be adjusted to more directly reflect the number of query terms that are matched by the item, so that items that match more query terms than others are favored in the ranking. In step 807, if any items remain to be processed, the facility loops back to step 801 to process the next item, else the facility continues in step 808. In step 808, the facility displays the items identified in the query result in accordance with the ranking values generated for the items in step 806. Step 808 preferably involves sorting the items in the query result in decreasing order of **their ranking values, and/or subsetting the items in the query result to include only those items above a threshold ranking value, or only a predetermined number of items having the highest ranking values**. After step 808, these steps conclude"; Bowman); and

(vii) providing an information retrieval tool search result output obtained by use of said identified weighted query terms (Page 3, lines 21-23, "The facility then combines the scores identified for each item to **generate ranking values for a relatively small number of items**, which may include items not identified in the query result"; Bowman¹).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a method of selecting and calculating, for every selected set of information, a weighting associated with every query term, said weighting indicative of the proportion of users who identified the selected set of information and indicated that it was relevant; identifying ... a weighting in excess of a predetermined threshold; providing ... output ... by use of said identified query term, as disclosed in Bowman into the method of accessing sets of information as disclosed by Liddy, to provide a technique for displaying items relating to at least some of the terms in a query even when no items completely match the query (Page 2, lines 13-15; Bowman). One of ordinary skill in the art would be motivated to make the aforementioned combination with reasonable expectation of success.

Claim 8 is rejected for the reasons set forth hereinabove for claim 7, and furthermore the combination of Liddy in view of Bowman discloses a method wherein, at (iv), each said selected set of information is representative of the same category of information (Liddy, Figure 7) and wherein the method includes (viii) using said identified

¹ Additionally, the combination of Liddy in view of Bowman discloses the details of this feature (Page 14,

one or more query terms to search for further sets of information in said category of information (Bowman, page 3, line 18- page 4, line 3).

Claim 9 is rejected for the reasons set forth hereinabove for claim 7; and furthermore the combination of Liddy in view of Bowman discloses a method wherein, at (ii), said indication comprises accessing a set of information identified in the response from the retrieval tool (Abstract; Liddy).

Claim 10 is rejected for the reasons set forth hereinabove for claim 9; and furthermore the combination of Liddy in view of Bowman discloses a method wherein, at (ii), detecting said indication includes measuring the time spent by the user in accessing said set of information (page 4, lines 15-16; Bowman).

Claim 11 is rejected for the reasons set forth hereinabove for claim 10; and furthermore the combination of Liddy in view of Bowman discloses a method wherein, at step-(iv), said weighting is adjusted according to the measurements of time spent by users in accessing the respective selected set of information (Page 4, lines 13-16; Bowman).

lines 27 – 29, “the facility **displays the items identified in the query result** in accordance with the ranking values generated for the items in step 806 ...”, Bowman).

Claim 1 is rejected on grounds corresponding to the reasons given above for claim 7; and furthermore the combination of Liddy and Bowman discloses an apparatus having:

a computer having a user interface providing access to at least one information retrieval tool (Col. 4, lines 13-15, "FIG. 8 is a screen shot showing the general features common to most screens used in the graphic user interface (GUI)"; Col. 7, lines 35-46, "User interface software 70 allows the user to interact with the system. The user interface software is responsible for accepting queries, which it provides to processing engine 50. The user interface software also presents the retrieved documents as a result of the query to the user and reformats the output in response to user input. User interface software 70 is preferably implemented as a graphical user interface (GUI), and will often be referred to as the GUI"; Liddy);

a computer store for recording data relating to information retrieval by users (Col. 6, lines 60-67, "The server's storage subsystem 35, as shown in FIG. 1, maintains the basic programming and data constructs that provide the functionality of the DR-LINK system. DR-LINK software is designed to (1) process text stored in digital form (documents) or entered in digital form on a computer terminal (queries) to create a database file recording the manifold contents of the text, and (2) match discrete texts (documents) to the requirements of a user's query text."; Liddy).

Claims 2 and 3 are rejected on grounds corresponding to the reasons given above for claims 9 and 7.

Claim 4 is rejected for the reasons set forth hereinabove for claim 1, and furthermore the combination of Liddy in view of Bowman discloses an apparatus, wherein said analysis means are further arranged to receive one or more query terms from said user interface, to identify a second group comprising one or more sets of information referenced in said store for which said received one or more query terms have a weighting in excess of said predetermined threshold, and to identify one or more further recorded query terms having, in respect of each member of said second group, a weighting in excess of said predetermined threshold (Page 3, line 18- page 4, line 3; Bowman).

Claim 5 is rejected for the reasons set forth hereinabove for claim 1; and furthermore the combination of Liddy in view of Bowman discloses an apparatus wherein said **one or more query terms** include words or word phrases and wherein said monitoring means are operable to record words from said one or more search criteria in a stemmed form (Col. 5, lines 8-15; Liddy).

Claim 6 is rejected for the reasons set forth hereinabove for claim 1; and furthermore the combination of Liddy in view of Bowman discloses an apparatus wherein said analysis means include grouping means to identify one or more information categories represented by sets of information referenced in said store, to associate one or more of said referenced sets of information representative of the same information category, and wherein said analysis means are arranged to identify those

recorded query terms having, for each of said associated sets of information, a weighting in excess of said predetermined threshold (page 3, line 18- – page 4, line 3, page 14, line 17 – page 15, line 3; Bowman).

Claim 12 is rejected for the reasons set forth hereinabove for claim 1; and furthermore the combination of Liddy in view of Bowman discloses an apparatus wherein said group comprises at least one set of information representative of a particular category of information (Figure 16; Liddy).

Regarding Claim 13, Liddy discloses a method ...comprising:

for each and every item of stored information, maintaining a store of query terms previously used by plural users (Col. 32, lines 43-45, 'The user can also click the "Return to Request" button 370i and modify the query' wherein it is inherent that the query is stored in the system for the user to be able to go back to modify the query, wherein 'query' is analogous to 'search criterion'; Liddy) and

However, Liddy does not expressly disclose a store of query terms individually weighted to represent the proportion of prior users who are considered to have found a respectively associated stored item of information to be relevant to a particular query term, and providing an information retrieval tool output to a user of a user-input query term using said store of weighted search criteria.

On the other hand, Bowman discloses limitations of:

a store of query terms individually weighted to represent the proportion of prior users who are considered to have found a respectively associated stored item of information to be relevant to a particular query term (page 3, lines 6-9, "The scores in the rating table preferably reflect, for a particular item and term, how often users have selected the item when the item has been identified in query results produced for queries containing particular term"; Figures 3 and 4, wherein the scores are analogous to weighting; Figure 8, steps 803, 804); and

providing an information retrieval tool output to a user of a user-input query term using said store of weighted query terms (Page 3, lines 21-23, "The facility then combines the scores identified for each item to **generate ranking values for a relatively small number of items**, which may include items not identified in the query result"; Bowman²).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a method of a store of query terms individually weighted to represent the proportion of prior users who are considered to have found a respectively associated stored item of information to be relevant to a particular query term, and providing an information retrieval tool output to a user of a user-input query term using said store of weighted search criteria, as disclosed in Bowman into the method of accessing sets of information as disclosed by Liddy, to provide a technique for displaying items relating to at least some of the terms in a query even when no items completely match the query (Page 2, lines 13-15, Bowman). One of ordinary skill in the

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art would be motivated to make the aforementioned combination with reasonable expectation of success.

Claim 14 is rejected for the reasons set forth hereinabove for claim 13; and furthermore the combination of Liddy in view of Bowman discloses a method wherein, said weighted query terms represent a binary-valued thresholded determination (Figures 3 and 4, wherein the scores are analogous to weighting; Figure 8, steps 803, 804; Bowman).

Claims 15 and 16 are rejected on grounds corresponding to the reasons given above for claims 13 and 14.

² Additionally, the combination of Liddy in view of Bowman discloses the details of this feature (Page 14, lines 27 – 29, “the facility **displays the items identified in the query result** in accordance with the ranking values generated for the items in step 806 ...”, Bowman).

Response to Arguments

1. Applicant argues that the prior art fails to disclose; "selecting and calculating, for every selected set of information, a weighting associated with every query term, said weighting indicative of the portion of users who identified the selected set of information and indicated that it was relevant; identifying ... a weighting in excess of a predetermined threshold; providing ... output ... by use of said identified query term."

Examiner respectfully disagrees. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the feature upon which applicant relies (**portion** of users) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

However, the combination of Liddy in view of Bowman does disclose features included in the claimed invention of: selecting ... and calculating, for every selected set of information, a weighting associated with every query term, said weighting indicative of the proportion of users who, ..., identified the selected set of information and indicated that it was relevant (Figures 3, 4, and 8, steps 803, and 804, Page 3, lines 6-9, "The scores in the rating table preferably reflect, for a particular item and term, how often users have selected the item when the item has been identified in query results produced for queries containing particular term"; wherein the step including scores in a rating tables corresponds to the step of weighting as claimed; Bowman). Additionally, the combination of Liddy in view of Bowman discloses the details of such feature (Page

4, lines 8 – 12, “allowing users that are more interested in the human dynamics book to select it more easily”; wherein the users, included in Bowman’s disclosure, correspond to the proportion of users as claimed; Bowman).

Furthermore, the combination of Liddy in view of Bowman does disclose: identifying ... a weighting in excess of a predetermined threshold (Figure 6, Page 3, lines 18-21, “On the other hand, in embodiments in which the goal is to select a few items in the query result having the **largest ranking values**, the facility preferably loops through the terms in the query, and, for each item, identifies the top few rating scores for that term and any item ”; page 14, line 17 – page 15, line 3, “In step 806, the facility combines the scores for the current item to generate a ranking value for the item. As an example, with reference to Figure 6, in processing datum having item identifier "1883823064", the facility combines the score "116" extracted from entry 602 for this item and the term "dynamics", and the score "211" extracted from entry 605 for this item and the term "human". Step 806 preferably involves summing these scores. These scores may be combined in other ways, however. In particular, scores may be adjusted to more directly reflect the number of query terms that are matched by the item, so that items that match more query terms than others are favored in the ranking. In step 807, if any items remain to be processed, the facility loops back to step 801 to process the next item, else the facility continues in step 808. In step 808, the facility displays the items identified in the query result in accordance with the ranking values generated for the items in step 806. Step 808 preferably involves sorting the items in the query result in decreasing order of **their ranking values, and/or subsetting the items in the query**

result to include only those items above a threshold ranking value, or only a predetermined number of items having the highest ranking values. After step 808, these steps conclude”; Bowman).

The combination of Liddy in view of Bowman also does disclose: providing ... output ... by use of said identified query term (Page 3, lines 21-23, “The facility then combines the scores identified for each item to **generate ranking values for a relatively small number of items**, which may include items not identified **in the query result**”; Bowman). Additionally, the combination of Liddy in view of Bowman further discloses the details of this feature (Page 14, lines 27 – 29, “the facility **displays the items identified in the query result** in accordance with the ranking values generated for the items in step 806 ...”, Bowman).

2. Applicant argues that the prior art fails to disclose; “for a user to identify that the referenced set of information was relevant”.

Examiner respectfully disagrees. It is noted that the specific wording and feature upon which applicant relies (“for a user to identify that the referenced set of information was relevant”) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). However, the combination of Liddy in view of Bowman does disclose the claimed limitation of: detecting an indication by the user as to the relevance of a set of information identified in the response from the retrieval tool (Abstract, “A set of documents is presented to the

user, who is given an opportunity to select some or all of the documents, typically on the basis of such documents being of particular relevance”).

3. Applicant argues that the prior art fails to disclose; “indicate that users actually identify whether the reference set of information was relevant”.

Examiner respectfully disagrees. It is noted that the specific wording and feature upon which applicant relies (“indicate that users actually identify whether the reference set of information was relevant”) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

4. Applicant argues that the prior art fails to disclose; “a user affirmatively responds to the retrieved information by identifying which information is actually relevant”.

Examiner respectfully disagrees. It is noted that the specific wording and feature upon which applicant relies (“a user affirmatively responds to the retrieved information by identifying which information is actually relevant”) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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5. Applicant argues that the prior art fails to disclose that; "a user would identify which pieces of retrieved information are actually relevant and then create weighting factors based on this user action".

Examiner respectfully disagrees. It is noted that the specific wording and feature upon which applicant relies ("a user would identify which pieces of retrieved information are actually relevant and then create weighting factors based on this user action") is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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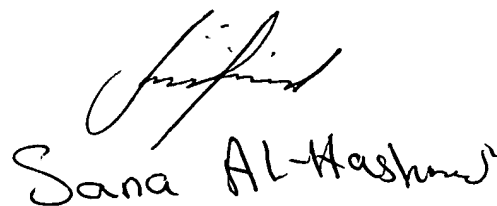
Points Of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna Colan whose telephone number is (571) 272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan
Examiner
Art Unit 2162
November 16, 2006


Sana Al-Hashmi